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Core Competence And Sustainable Competitive Adventage Of Small Silk Weaving Industries (SIs) In Wajo District, South Sulawesi

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Abstract

The effect of core competences on small industries (Sis" competitiveness have been widely studied; however, very little studi connectedness between the research and practical use within SIs, specially within the framework of the development of regional competitiveness. The aim of this study is to identify and determine core competence and sustainable competitive advantage (SCA) of the small silk weaving industries in Wajo District, and to formulate its road map development. Data and information are collected using several instruments : questionnaire, depth interview, and public consultation through Focus Group Discussion (FGD). Getting core products of SIs was done by using analysis of tree diagram and expected value (TEV), the identification of core competence and source of sustainable competitive advantage was done by using value chain analysis and criteria of the SCA, and developing of core competence development was done by using gap analysis, SWOT, and Porter's generic strategy.

The results of this research indicate that silk weaving was selected through public consultation and TEV analysis as a core product of SIs in Wajo District. The core competence and the SCA of the core product was operating activities, namely process of lusi (wrap silk yarn) and Pakan (weft silk yarn) preparation that producing designs and motifs or pattern typical of Wajo silk weaving For the medium term planning (2011-2016), the core competence development will focus on the development of designs, colors, and uniqueness of new motif for clothing materials and interior accessories materials and souvenirs.

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1. Introduction

Small industries (SIs) has been identified to play a crucial role in economic development process by developing countries as poverty and unemployment which are burning problem in those economies (Gamage,2003). In Indonesia, the role of SIs in national economy can be highlighted from its contribution to employment is 97,04 %, and nearly 20.95 % of total gross domestic product (GDP), but only 16% of total exports Further, the existence of the SIs could potentially as the driving growth of a local economic activity in a region due to its use local raw material for raising production with the help of local skills (Nurcahyo, et.al, 2012). So, it is seem that the contribution of SIs to national economy have not yet optimal and competitiveness of its products in international market is lower. While, regional competitiveness based on the capacity of firms to compete, to grow, and to be profitable (Garden and Martin, 2010).

There is now a widespread agreement that core competence is important sources and foundation that enterprises can obtain sustainable competitive advantage (Zich 2007; Jiangwei, 2009,; and Agha, Alrubaiee and Jamhour, 2011). In the regional competitiveness context, the core competence of the SIs can build the competitiveness of the region with its unique (Sen and Haq,2010; Nurcahyo, et.al, 2012). Many research has been conducted to study the role of core competence in development of SIs competitiveness, but as a matter of fact, Van Verbeke (2003) and Bhamra, Samir and Bhamra (2010) point out, one potential limitations with the provious studies is lack of connectedness between the research and its 'real world' understanding and practical use within SIs, specially within the framework of the development of regional competitiveness

Wajo Districtis is SIs development center in South Sulawesi province. To improve competitiveness of the SIs in the region, concept of core competence has not been implemented correctly and integrated into the planning of the regional economy. In practice, the concept of core competence are still partially understood without takes into account the characteristics and indicators of core competence. In practice, the concept of core competence are still partially understood and core competence often just replication from the other region without considering its capabilities and resources, therefore, many programs fail to be implemented. This is compounded by the presence of top-down approach in defining and developing a core competence without verifying all the relevant areas or practitioners. Given the issue of the core competence of SIs in Wajo District, this study aims to identify and determine core competence as source of sustainable competitive advantage of SIs' superior product priorities in Wajo District. At the end, we also intend to formulate a comprehensive road map of the core competence development from strategy to action planning.

2. Literature review

One source of competitive advantage according to Hill and Jones (1998) is a core competence, which will delivery a differentiated product (unique and difficult to imitate by competitors) to compete in international markets. Hill and Jones further suggested that if an organization wants to have a core competence, then it must have the resources (tangible and intangible resources) which are unique. In addition, the competence needs to create value as well as the capabilities (skills) to exploit there source, and a unique capability in manage resources to productive uses.

According to Williams (1992), core competence are the skills that enable companies to achieve the basics of customer benefits through the establishment, improvement, renewal and use of resources leading to sustainable competitive advantage. While Prahalad and Hamel (1990) stated that there are at least three prerequisites that can be applied to identify core competence within the company, which are: (a) provides potential access to a variety of markets, (b) to contribute significantly to the final product the customer benefits, and (c) difficult to

imitate by competitors. The same thing also expressed Barney (1995), and Barney et al. (2001) who argued that there sources and capabilities are important for the company when it is to have value, rare and difficult to imitate. These four dimensions of competence are value added, rare, difficult to imitate, ability to exploit, which are important indicators in determining whether a competitive advantage can be sustained or not. Man, Lau and Chan (1998) and Kuncoro (2008) also noted that the resources and capabilities can be a core competence if it meets certain conditions/criteria:

- These resources can add value to product or service that offer by organization. The point is that these resources can be used to exploit the external conditions that can provide income to the organization, or resources can be used to neutralize the external factors that are not profitable.
- Rare. Ideally, no competitor hasthe same resources. More and more companies who have the same resources or capabilities, therefore the organization should use even the smaller capabilities can affect the sustainable competitive advantage for the company.
- Resources should be difficult to imitate. Imitation by competitors can be done in two ways, namely duplication and substitution. Duplication occurs when acompetitor creates the same resources, while substitution occurs when a competitor replaces some of there sources with alternative resources to gain competitive advantage with the same result.
- Resource companies should not only be valuable, rare anddifficultto imitate,but the companyalsomusthave the ability to utilize or to exploit what it has.

In line with the concept of core competence, developed the concept of SAKA SAKTI (One District One Core Competence), which initiated by Huseini (1999). In reviewing the concept of core competence and develop the area, several steps must be implemented, ranging from the identification and inventory of a superior product in an area, build up the criteria and indicators for selection or selection priorities flagship product, carries on its selection of excellent products based on superior product selection criteria (in several stages, including performing searches and deepening the industrial structure of a superior product), the superior product focused on setting priorities as a core competence, conduct analysis of a superior product value chain focus, superior product development strategy, develop the institutional model, and develop models of assistance, monitoring and evaluation. Implementation phases of the parties involved in public consultation forum .

3. Research methodology

Based on the purpose of this study, this study is a descriptive research. The population in this study is small industries (i.e. firms with number of employee 5-18 peoples). The minimum sample size using Yamane's formula (Somekh and Lewin, 2005) is 288 unit firm. To get comprehensive information about indicator and measuring parameters, we also interview as many as 30 expert from various departments such as academicians, official staff of local government, NGOs, the chamber of Commerce, etc.

Data and information collected in this study consisted of secondary and primary data. Secondary data obtained from related offices in Wajo as well as regional planning documents. While the primary data collected are: raw materials, technology and production processes, human resources, competitiveness, facilities and infrastructure, institutional support, social capital, and security condition.

The primary data collected by using questionnaire instruments. There are two types of questionnaires are used, the questionnaire 1 - expert judgment on the important indicators to the SIs' development activities, and questionnaire 2- perception of businessman on the indicator according to rating of SIs' superior product priorities. Measurement scale used is a Likert scale of 4 (four) levels. Public consultation or the Forum Group Discussion (FGD) is required to solicit input or suggestions from various stakeholders involved, which can be categorized as primary data, which is used as a material consideration in setting core competence of Sis in the regions, and formulating core competence development strategy and action planning. Data analysed using :

TEV (tree diagram and expected value), value chain and sustainable competitive advantage analysis, SWOT analysis, and Porter's generic strategies.

4. Results and discussion

Setting core product (CP) of SIs in Wajo district begins with identifying superior product of the SIs. From the analysis of the data base SIs (long list) and in depth interview with the staff of the local Government, there are 13 products of the SIs which have superior product and services, namely dried fish, brown sugar, cane sugar, silk threads, silk weaving, red stone, handicrafts, furniture, woven bamboo, pottery, electronic service, and machinery service.

Then, from the thirteenth superior product and services, the superior products that were setting as priorities to be developed by local government are as much as five superior products are dried fish, silk threads, silk weaving, red stone, and pottery. The fifth superior products selected as the product of priorities are based on the assessment of the three aspects: the most number of business units, creating the highest value added, and having the widest market Further, the five priorities products analyzed by TEV analysis based on assessment by experts and businessmen. The weight given by expert on the eight indicators provided on Figure 1.

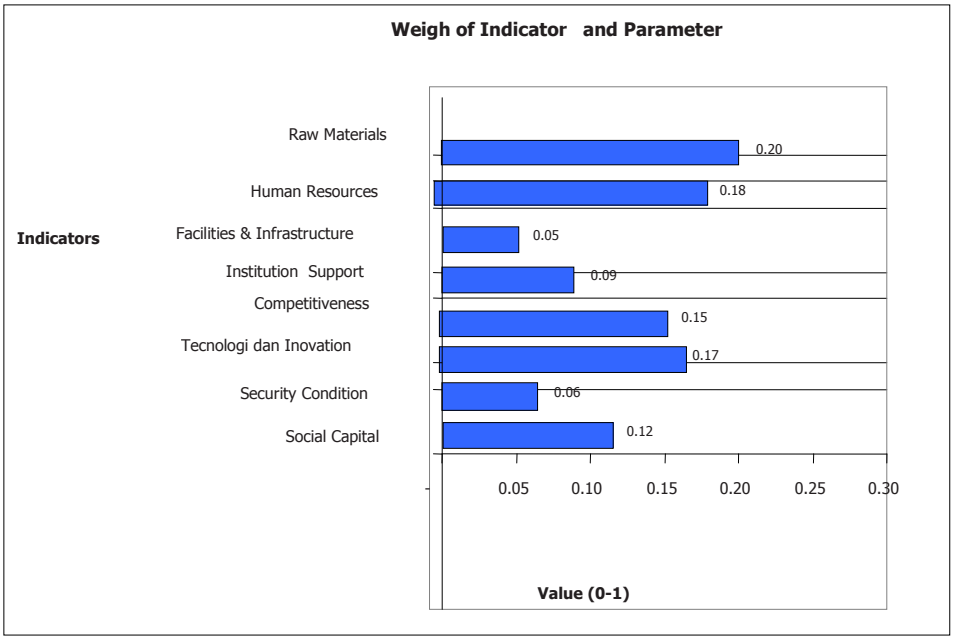

Fig. 1. Weight Given By Expert of The Important Indicator

From the Fig 1, its show that indicators are considered important by experts to SIs' development activities in Wajo District is raw materials with an weights value 0.20, human resources with weights value 0.18; technology and production process (0,17), competitiveness (0.15), and social capital (0,12). While facilities and infrastructures, institutional support, and security condition is not important as indicated by a value less than 0.10. From the value of perception given by businessman, see Table 1.

Tabel 1. Perception Value of Businessman on Indicators According to the Five Superior Product Priorities

Indicator	Superior Product Priorities				
	Silk Weaving	Pottery	Dried Fish	Red Stones	Silk Thread
Raw Material	2.17	3	2.92	3.08	2.24
Technology and Production Procesesses	2.99	2.1	2.41	2.41	2.04
Institution Supports	2.6	1.92	1.77	2.23	1.16
Human Resources	3.27	1.68	2.19	2.43	2.98
Competitiveness	3.02	1.82	1.67	1.49	2.06
Facilities & Infrastructure	3.35	3.05	3.06	3.22	2.77
Security Condition	2.49	2.23	1.63	2.12	1.72
Social Capital	3.66	3.16	3.26	3.26	3.08
Total Value	2.88	2.29	2.35	2.49	2.25
Periority	1	4	3	2	5

Description : Good (>3.25), Average (2.50-3.25), Below Average (1.75-2.49), Poor (<1.75).

From Tabel 1, show that silk weaving got higher value (2.88). However, all of the superior product priorities tend to have values that are below average and there are several indicators that need to be improved. With span of indicator values are 2.83-3.82, there are three indicators that are less well on the category (below average), namely the institutional support (1,94), competitiveness (2,01), and security condition (2.03). While the indicator that is a good (high) category is raw materials (2,68), technology and production processes (2,39), human resources (2,51), facilities and infrastructure (3,09), and social capital (3,28).

Comparison value between the five priorities of superior products, showed that the highest total value is a silk weaving (2.88) and into the category average, which is supported by the social capital (3.66), facilities and infrastructure (3.35), and human resources (3.27)., the competitiveness (3.02), technology and production process (2.99). The lowest value is silk thread with a total value is 2.25 and comes into the category below average, which is affected by almost all indicators. Thus, a superior product that have first ranks priorities is silk weaving.

Then, the second rank priorities is red stone, the third rank priorities is the dried fish, the fourth rank priorities is the pottery, and the fifth rank priorities or last priorities is the silk thread. From the table, it also appears that although the silk weaving have set as a core product, but its still faces many obstacles perceived by the businessman, particularly raw materials (2.17) and security condition (2.49). The Ranking priorities of the superior products (core product) that obtained from the TEV analysis, thus, its verified by multi stakeholders through public consultations (FGD). After through intensively debate, the FGD participants agreed that the first rank by silk weaving , followed the second rank by pottery, the third rank by dried fish, the forth rank by red stone, and the fifth rank by silk threads. There fore, from the five superior product priorities, silk weaving is core product of SIs in Wajo District.

The analysis of the value chain of the core product shows that silk weaving activity is the core competence products in Wajo. This is because silk weaving activity is that having the highest total value of SCA (19) and the highest percentage of max value of 95%. Next, followed by the input logistic activity with the total value of SCA by 15 from the maximum percentage of max value by 75%. Next is the value of marketing and sales activities with a total value of SCA by 14 and the percentage of max value by 70%, the activity of the logistics out of the development and activities technology with a total value of SCA is 11 and the percentage of max value by 55%. In addition, the activity of the service and human resource management with a total value of SCA by 9 and the percentage of max value by 45%, the activity of the company with a total value of infrastructure SCA value by 8 and the percentage of Max value of 40%.

Thus, the value chain of activities that have the highest score of SCA is the operation of the value chain,

namely process of lusi (wrap silk yarn) and pakan (weft silk yarn) preparation (95.00), followed by logistics activity value chain into (75.00), and the lowest is the activity the company's value chain infrastructure (40.00). From the study, we also found that the process has SCA which are: (a) the uniqueness of the motif/design from silk weaving with strong value as can be seen on aesthetic value, engineering value, and value in use, (b) difficult to imitate because it is skills (traditional learning accumulation of people in Wajo community has been a long time and culture) and the local technological innovation (weaving gedokan and ATBM), (c) rare, because the motif / design and quality of silk weaving of Wajo district have more advantages than silk weaving produced in other regions, and (c) the silk weaving has been utilized as raw materials by clothing industries in Java and Sumatera.

In the medium term (2011-2016), based on a long list and short list of issues obtained by GAP analysis, the pattern of development scenarios set out some core competence of silk weaving through a SWOT analysis as follows:

- Development of designs, colors, and motifs unique new material for clothing and interior asesosiris materials and souvenirs (SO strategy)
- Application of standardization and certification of quality assurance, design and motif silk weaving clothing for the interests of consumers at home and abroad (WO strategy)
- Provision of appropriate technology and advanced weaving and the development of quality human resources in the weaving techniques of the standard (ST strategy)
- Creation of design patents and silk of Wajo (WT strategy)

To achieve above average performance in the industry, the development strategy of core competence in the silk weaving should include the generic strategies of Porter (1996). The degree of linkage between the core competence development strategy in Wajo District with generic strategies, see Tabel 2.

Table 2. The Degree of Linkage Between Generic Strategy With Core Competence Development Strategy in Wajo District

No	Strategis Description	Lingkage			The meaning of Linkage	Recomendation
		CA	D	F		
1	Development of design, color, and motif unique new material both for clothing and for various other uses of the function	Yes	Yes	Yes	Very Strong	The main strategy
2	Appropriate procurement technology and advanced weaving sector as well as the development of quality human Resourcesn the weaving sector engineering standards	Yes	Yes	No	Strong	The first of Supporting Strategy
3	Application of standardization and certification, quality assurance and design motif silk cloth for the interests of consumers at home and abroad	No	Yes	Yes	Strong	The second of supporting strategy
4	The creation of the right of patent design and motives wajo of silk weaving	No	Yes	No	Less Strong	The third of supporting strategy

Description : CA (Cost Advantage), D (Differentiation), F (Focus)

From the Table 2, it appears that for the medium term (2011-2016), scenario development of core competence in silk weaving will be focused on the development of designs, colors, and unique of new motif for clothing materials or material interior accessories and souvenirs (SO strategy). This strategy will be implemented through a series of action plans such as: recruitment of experts in design and motif, training in design and manufacture of silk weaving motifs. In addition, the strategy could be support by supporting strategy such as: Technology improvements in silk thread spinning and silkworm cultivation, developing silk weaving market, and strengthening human resource in silk weaving, and provision of economic infrastructure.

5. Conclusion and recommendations

From these results, it can be concluded :

1. Silk weaving was selected through public consultation and TEV analysis as a core product of SIs in Wajo District.
2. The value chain analysis and the SCA shows that the core competence and sustainable source of competitive advantage of silk weaving is on the operating activities, namely process of lusi (warp silk yarn) and pakan (weft silk yarn) preparation that resulted in the design and motive/pattern typical Wajo Silk weaving
3. The gap analysis, SWOT and Porter's strategy of generic scenario shows that the pattern of development of the core competence and sustainable source of competitive advantage in the medium term planning (2011-2016) will be emphasised on the development of design, color, and the new motive.

Then, its recommendated :

1. It is very important for local decision-makers concerned to consider various aspects and assets of the region, including the opportunity of cooperation with other regions.
2. Because this program is a critical milestone toward the development of core competence so the industry can be more intensive and expansive to be carried out in the long-term program (2017-2031).

References

Agha,S, Alrubaiee,L and Jamhour, M.,2011. Effect of Core Competence on Competitive Advantage and Organizational Performance, International Journal of Business and Management , 7 (1), pp 192 – 204

Barney, J.B., 1991. Firm Resources and Sustained Competitive Advantage, Journal of Management,17 (1), pp. 99-120.

Barney, J., M. Wright, and D.J. Ketchen, 2001. The Resource-Based View of the Firm: Ten Years After 1991, Journal Management, .27 (6), pp. 625 -64

Bhamra, R, Samir, D; Bhamra, T., 2010. Competence understanding and use in SIs: a UK manufacturing perspective, paper, Conference for Ministers responsible for SIs and Industry Ministers Bologna, Italy, 14-15 June 2010

Collis D.J., Montgomery C.A. 1997. Corporate strategy - Resources and the Scope of the Firm. 1 st ed. McGraw-Hill

Gemage, A.S., 2003. Small and Medium Enterprises Development in Srilangka : A Review, SEBM/Rons, 3(4),pp. 133-150.

Hill, C.W.L. and G.R. Jones. 1998. Strategic Management, An Integrated Approach. Fourth Edition. Houghton Mifflin Co., Boston, New York.

Huseini,M, 1999. Mencermati Misteri Globalisasi: Menata-Ulang Strategi Pemasaran Internasional Indonesia Melalui Pendekatan Resource-Based, Pidato Pengukuhan Jabatan Guru Besar Tetap dalam Bidang Marketing Internasional pada FISIP UI, Sabtu, 25 September 1999.

Jiangwei, SI, 2009. Study on the Core Competitiveness of Small and Medium-Sized Enterprises, Orient Academic Forum,pp.585-589.

Kuncoro, M, 2008. Mendongkrak Daya Saing Kesimpulan dan Rekomendasi, http://news.okezone.com/index.php/ReadStory/2008/09/10/58/144531/mendongkrak-daya-saing

Man , T.W.Y, Lau, T and Chan, K.F.1998. Conceptualisation of SIS' Competitiveness : A Focus on Entrepreneurial Competences, www.sbaer.uca.edu/research/icsb/1998/27.pdf

Nurcahyo, R. Farizal, Stiadi,E. dan Saparudin,. 2012. Penentuan dan Pengembangan Kompetensi Inti Kabupaten Bekasi, Jurnal Teknik Industri, 13 (1),pp 37–42

Porter, M.E. 1996. What Is Strategy?, Harvard Business Review, November-December.: pp.61-78.

Prahalad C.K. and G. Hamel, 1990. The Core Competence of the Corporation, Harvard Business Review, 68 (3), pp.79-92.

Sen, A and Haq,K, 2010. Internationalization Of SIs: Opportunities And Limitations In The Age Of Globalization, International Business & Economics Research Journal, 9 (5), pp. 135-142

Somekh,B and C. Lewin, 2005, Research Methods in The Social Sciences, London, Thousand Oaks, New Delhi: Sage Publications, Inc.

Subagiyo, D. 2008. Analisis Kompetensi Produk Unggulan Daerah Pada Batik Tulis dan Cap Solo di DATI II Surakarta, Jurnal Ekonomi Pembangunan, 9 (2), ,pp. 184-197

Van Verbeke, W. 2003. Realizing New Regional Core Competence : Estabilishing A Custemer-Oriented SME-Network arno.unimaas.nl/show.cgi?fid=683

Williams, 1992. How Sustainability is Your Competitive Advantage? California Management Review, Spring, p.33

Zich,R. 2007. Possibility of Evaluation and Development of Competitiveness in The Internationalization Process SME'S Vadyba / Management, 1 (14), pp. 75-92